# APPENDIX

#### INTRODUCTION -- FOMC CHART SHOW

During our presentations we will be referring to the package of chart materials distributed to you. The staff forecast presented in detail in the Greenbook is based upon several assumptions that are displayed in the first chart of the package. For monetary policy, we continue to assume growth of M-1A--abstracting from shifts into NOWs--of 4½ percent in 1981 and 3-3/4 percent in 1982. The assumptions represent the midpoint of the tentative range set last July for 1981 and a further ½ percentage point reduction in 1982. The corresponding growth rate of M-1B is also shown. The fiscal policy assumptions include some restraint on growth of federal expenditures as well as a personal income tax cut and liberalization of accelerated depreciation allowances.

Additional information on the federal budget outlook is presented in the next chart. Federal outlays are projected to grow less rapidly in the current fiscal year than in 1980, and to moderate further in 1982. The assumed expenditure restraint falls on nondefense areas and amounts to cutting \$7 billion out of the current year budget and about \$25 billion out of the 1982 budget. These cuts seem roughly in line with the new administration's announced intentions, and are quite ambitious. However, the staff's economic and financial forecast differs from that underlying the official budget and entails higher outlays for interest and unemployment compensation as well as lower tax

receipts. Thus, the unified budget deficit in 1981 is projected to be little changed from the preceding year and to rise to the neighborhood of \$80 billion in fiscal 1982, without another cut in personal income taxes.

On the monetary policy side, the top panel of the next chart displays the behavior of M-1A and M-1B during recent years and the assumed growth for 1981 and 1982. The data shown have been adjusted to attempt to remove the effects of shifts into ATS and NOW accounts in the past, and to abstract from such shifts in the future. As is clear, the assumed growth in 1981 represents a considerable deceleration from that experienced last year. staff forecast of the economy entails strong demands for goods and services at higher prices and along with monetary restraint results in sizable increases in the velocity of M-1B over the 1981-82 period--shown in the middle panel. Such growth of velocity well above secular trend would be consistent with rising interest rates, which are shown in the lower panel. While interest rates could well dip in coming months as nominal GNP growth slows from recent high rates, achieving the Ml growth assumed nevertheless would seem to require rising rates later in the year and on into 1982.

Mr. Zeisel will continue the presentation with a discussion of recent and prospective developments in the domestic economy.

### FOMC CHART SHOW

The economy recovered briskly from the sharp spring contraction, and ended the year on a surprisingly buoyant note overall. As is evident in the next chart, however, signs have emerged recently of a slowdown in several key sectors.

Retail sales in real terms are now little changed from their level in July. Much of the weakness has been in autos, with unit sales continuing well below prerecession levels. While the level of housing activity—the right hand panel—remains surprisingly strong in the face of historically high interest rates, starts have leveled off well below their previous high; and field reports and Redbook comments continue to suggest a downturn; the advance report on permits for the first half of January, in fact, shows a sharp decline.

The bottom two panels indicate the relatively strong production and employment rebound in the last half year. Both measures have about recovered their earlier losses. But as is evident, the production of motor Vehicles and construction supplies remains conspicuously below earlier levels and with demand weak, further sharp cuts in auto output occurred in January. In the case of employment, total hiring appears to have outstripped growth in overall output—portending some downward adjustments of payrolls in the absence of further increases in demand.

The top panel of the next chart shows the sharp contraction and recovery in real GNP growth over the past year.

Real output in the fourth quarter, however, was no higher than a year earlier, as illustrated in the lower panel. And, as is indicated, we are projecting a progressive slowing in the pace of activity over the first half of 1981, reflecting a contraction in housing activity, and a weakening in consumption owing in part to accelerating inflation and the bigger Social Security tax bite. The economic momentum evident at year-end still seems likely to result in a moderate gain in real GNP this quarter, but despite evidence of considerable potential demand, fundamental policy constraints dictate very sluggish growth, on balance, over the projection period. Following a small decline this spring, real GNP is projected to increase only fractionally through 1982.

The strength of consumer demand recently was particularly surprisingly but it became a bit less so with the issuance
of revised national income and product data in December. As
shown in the top panels of the next chart, both personal income
and the saving rate were revised up, the latter by about 14
percentage points on average after mid-1979, suggesting less
pressure on household budgets than had been assumed.

The lower two panels also are useful in understanding the relative strength in consumer outlays; the slower growth of consumer credit has permitted repayment obligations to be

brought into better alignment with disposable income. The bottom panel illustrates the declining proportion of disposable income channeled into food and energy since last spring. Nevertheless, both of these ratios remain quite high historically, leaving discretionary consumer spending still vulnerable to a substantial weakening in real income growth.

As the top panel of the next chart shows, the revised saving rate remains relatively low--about a percentage point below the postwar average. The saving rate is projected to drop in the first half of the year in response to weaker real disposable income, and to begin rising with the midyear tax cut. Still, the rate is projected to move only into the 5-5½ percent range, reflecting consumers efforts to maintain living standards in the face of slow income growth.

As the lower panel shows, we are forecasting a sluggish pace of growth of consumer outlays, tracking the expected performance of real disposable income and overall activity.

The strong performance of housing recently in the face of exceptionally high interest rates, as portrayed in the top panel of the next chart, has led us to revise our forecast somewhat. In assessing the factors determining housing activity, it is clear that strong underlying demand pressures are in place. Homeownership has remained a key hedge against inflation. Moreover, the demand for housing is supported by fundamental demographic forces. Nevertheless, it is our view that financial considerations will remain a major factor damping activity. As the lower panel shows, we expect that the rise in the

pre-tax costs of servicing standard mortgage contracts will continue to outstrip income growth, increasingly dissuading or disqualifying potential buyers. Higher financing costs also are likely to discourage construction, especially multifamily units that generally involve long lead times.

As shown on the next chart, we are projecting a decline in total housing starts from the current 1½ million annual rate to about 1.3 million units for most of 1981, with only a slight pickup in activity in 1982, reflecting accumulating demand pressures.

The next chart addresses the outlook for business capital spending. As indicated in the top panels, lead indicators of capital spending are generally below their recent peaks; real new orders for capital equipment have been trending down and backlogs have been shrinking. In addition, nonresidential construction contracts have been sluggish for some time. These facts suggest a continued, albeit moderate, decline in fixed capital outlays through 1981.

The investment outlook for 1982 is obviously more speculative. But the costs of debt capital will remain high and, as the middle panel shows, we expect capacity utilization to remain weak, generating little demand for expansion of capital stock except in fast growing sectors such as defense or energy-related industries. Nevertheless, assuming new tax incentives,

we expect capital outlays to level off and start edging up in real terms during 1982.

As is evident in the top panels of the next chart, inventories have proven to be less of a problem than has been typical in periods of large swings in demand and output. The inventory imbalances that developed during last spring's recession appear to have been largely a function of the sharp contraction in sales, and inventory/sales ratios have moved much of the way down again. As shown in the middle chart, business firms generally are keeping stocks under control.

We are projecting that business will succeed in keeping inventories in line with sales, and as is evident in the
bottom chart, this implies a small runoff in the second half
of 1981, and little inventory investment through 1982.

The next chart addresses the government component of spending. Federal defense purchases are projected to continue rising in 1981 and 1982--moving up in real terms at about a 9 percent rate--somewhat more than budgeted by the Carter administration. We are assuming offsetting reductions in federal nondefense purchases, as well as substantial cuts in transfers to individuals and in real grants to states and localities--shown in the second panel. This cutback will further tighten the fiscal position of these jurisdictions--shown in the third panel--at a time when their operating budgets will already have deteriorated significantly due to high interest rates and increased pressure

on receipts. As a result, we anticipate that real outlays of states and localities will continue to decline and, in aggregate, real total government purchases are projected to show little growth in the next two years.

As the top panel of the next chart indicates, we anticipate virtually no increase in employment over the projection period. Some decline in jobs is likely to accompany the cutback in production in early 1981, and only small gains are expected thereafter. Limited job opportunities should further damp labor force growth. Nevertheless, the expansion of labor supply likely will outpace job creation, and the unemployment rate--shown in the bottom panel--is projected to move up quickly this spring and then to drift higher, reaching 9 percent by the end of 1982.

As illustrated in the next chart, compensation costs are expected to continue increasing strongly during 1981 despite high and rising unemployment. The underlying trend in wage rates will be sustained in the near term by high rates of inflation in consumer goods. Moreover, the large recent hike in payroll taxes will add significantly to compensation costs early this year. By 1982, however, increases in compensation costs should moderate, reflecting the extended period of labor market slack, some slowing of inflation, and a smaller Social Security tax increase.

As the middle panel illustrates, it is not until 1982 that productivity is expected to begin to contribute to alleviating the impact of rising wages on labor costs. With no increase in output, we are forecasting another stagnant year for productivity in 1981 and only a slight rise in 1982 in line with the expected increase in activity. Nevertheless, this improvement, when combined with the reduction in wage pressures, is expected to result in a distinct deceleration of unit labor costs, which are projected to increase at about a 7½ percent rate in 1982.

The outlook for prices is addressed in the next chart. In addition to the continued pressure from rising unit labor costs, a rapid rate of rise in the general price level this year. will be sustained by higher energy and food prices, as shown in the top panel. Recent OPEC price increases, as well as the President's decision to decontrol domestic oil immediately, concentrate the energy price rise in the early part of 1981, and energy price pressures are projected to ease considerably in the second half. Food price increases also are expected to be rapid in the near term, reflecting in part the impact of the Florida freeze, but more fundamentally the supply considerations that portend increased meat prices. But both food and energy prices should, absent more bad luck, be rising at a more moderate rate in late 1981 and in 1982, lending support to reduced pressure from labor costs in easing overall inflation.

As indicated in the bottom panel, we are forecasting that overall prices will rise at about a 7-3/4 percent rate in 1982, down from the 10 percent pace in 1980 and 1981.

Mr. Truman will continue with a discussion of the international outlook.

#### FOMC Chart Show Presentation

The black line in the top panel of the first international chart shows that the foreign exchange value of the dollar recently has regained the near-term peak reached last March and April -- about 6 percent above its 1978 low. As shown by the red line in the chart, the dollar's appreciation since late 1978 has been somewhat more pronounced after adjustment for the faster pace of inflation in the United States than on average abroad.

The bottom panel of the chart shows movements in U.S. and foreign short-term interest rates over the past four years. Interest rates
abroad have declined somwehat on average over the past 9 months. We
expect that decline to extend into the forecast period, but the reduction will be small and is likely to be constrained by the persistence
of high U.S. interest rates. Changes in the differential between U.S.
and foreign interest rates over the past year or so have been dominated
by movements in U.S. interest rates and have been an important factor
affecting the dollar's foreign exchange value. However, interest rates
do not provide a complete explanation of the dollar's trend; the nominal
interest rate differential was almost as wide in late 1978 and last
Spring as it has been recently. A principal difference is that the U.S.
current account position swung into surplus in 1980.

Over the forecast period, we expect the dollar in nominal terms to remain close to the level it has reached in recent days. This projection is grounded on the continuation of relatively high U.S. interest rates and of the U.S. current account surplus, at a time when many

other industrial countries continue to have deficits. However, as was the case last year, the dollar's trend could well be interrupted from time to time.

The upper panel of the next chart shows that the expansion of real GNP essentially came to a halt in the major foreign industrial countries in 1980. Three of the ten countries in our average -- the United Kingdom, Canada and, possibly, France -- appear to have experienced negative growth. We expect only a moderate pickup in growth abroad in 1981 and somewhat faster growth in 1982, although growth abroad is expected to be more rapid than is projected for the United States.

As is shown in the lower panel, we expect that on average consumer prices abroad will continue to increase at a less rapid pace than in the United States. In fact much of the reduction in the pace of inflation abroad shown in the chart for 1981 was already recorded late last year. This reduction reflected the end of the oil-related surge early in 1980 but also, more significantly, the decline in underlying inflation in Japan and the United Kingdom.

Against this background, the next chart presents our projections for the components of the U.S. trade balance. As is shown in the upper left-hand panel, the volume of U.S. non-agricultural exports declined somewhat in the second half of last year and is expected to show little or no expansion during 1981. Next year, despite the pickup in growth abroad, we expect a decline in the volume of such exports because of the cumulative effects of the erosion of U.S. price competitiveness.

In contrast, we are projecting a resumption of the gradual expansion in the volume of U.S. agricultural exports, as is shown in the upper right-hand panel. Lower harvests abroad in 1980 have contributed to strong demand for U.S. exports, some of which is now coming from non-traditional markets replacing demand from Russia.

Turning to the import side, in the lower left-hand panel, we expect an 8 percent rise over the next eight quarters in the volume of our non-oil imports. This increase is caused partly by the pickup in domestic demand in the United States and, more significantly, by the effects of the decline in U.S. price competitiveness.

Our projection for U.S. oil imports is shown in the lower right-hand panel. It is based on the assumption that the price of imported oil will increase 10 percent this quarter and another 6-1/2 percent next quarter. These assumptions reflect the recent OPEC price announcements and the tightness in the oil market associated with the effects on OPEC production of the Iran-Iraq war. We are assuming that after mid-year the price of imported oil will remain roughly constant in real terms. We expect that the volume of U.S. oil imports, after a recovery from the temporarily depressed rates in the second half of 1980, will continue to trend down under the influence of slow U.S. real growth and the lagged effects on consumption of earlier rapid price increases. Expected price increases, however, more than offset the expected decline in the volume; consequently we expect that the U.S. oil-import bill, which reached about \$80 billion in 1980, will rise to about \$90 billion in 1981 and \$95 billion in 1982.

The last international chart summarizes our trade and current account forecast. As is illustrated in the upper panel, the U.S. trade deficit was reduced to about \$15 billion at an annual rate in the second

half of 1980. This year and next year, the trade deficit is expected to be in the \$20-25 billion range. Meanwhile, the U.S. surplus on non-trade current account transactions showed little increase in 1980, reflecting the negative accounting effects of the Aramco takeover in the first half as well as the effects of sluggish growth abroad on recorded net investment income receipts. We expect that the surplus on non-trade items will increase more rapidly in 1981 and 1982.

Consequently, as is illustrated in the middle panel, we expect that the U.S. current account surplus, which is now estimated to have been about \$16 billion at an annual rate in the second half of 1980, will be about \$12 billion in 1981 and \$18 billion in 1982.

Finally, as is shown in the lower panel of the chart, we expect only a small, positive contribution of exports of goods and services to GNP during the next two years, in contrast with the significant contributions during the past three years. Moreover, almost all of this projected contribution comes from increased service receipts. Meanwhile, imports of goods and services are expected to increase moderately from their recent, depressed levels.

Mr. Kichline will complete our presentation.

## CONCLUSION -- FOMC CHART SHOW

The top panel of the next chart displays funds raised by domestic nonfinancial sectors thought to be consistent with the staff's economic forecast. Total borrowing is projected to be about the same in 1981 as the reduced volume last year, and to grow somewhat in 1982 although by less than the growth of nominal GNP. Restraint on borrowing appears in private sectors, where borrowing is not expected to change much over the forecast period and to remain appreciably below that experienced in the late 1970s when prices were lower. The credit market environment projected is, of course, a reflection of monetary restraint, strong potential demands, and resulting upward pressures on Borrowing by the federal government is sizable, interest rates. especially in 1982. Treasury borrowing relative to GNP, the bottom panel, rises in 1982 but remains below the recent peak However, 1975 was a period of sluggish demands and a in 1975. less restrictive monetary policy than that built into the forecast for 1982, and such borrowing in the forecast is consistent with more pressures on markets than appeared earlier.

In private markets, borrowing requirements of nonfinancial corporations--shown in the top left panel of the
next chart--are projected to decline over the forecast period.
Expenditures on plant and equipment and inventories are rather
restrained for reasons discussed by Mr. Zeisel while growth of

internal funds is bolstered by the assumed tax cut.

Total funds raised—the top right panel—is projected to continue falling from the peak in 1979, with especially reduced reliance on bank loans and short—term paper. Balance sheet structures will provide incentives to fund short—term debt even at rates that firms may not find as attractive as they would like. The ratio of short—term debt relative to total debt outstanding—the bottom left panel—declines somewhat over the forecast period but is still high in an historical context. Holdings of liquid assets relative to short—term liabilities also are projected to continue to improve from the low level reached in 1979. Even so it's an outlook with considerable risk for weaker firms given high nominal interest rates, their limited financial flexibility, and sales volumes that may well prove disappointing.

The restraint in household borrowing is shown on the next chart. Net residential mortgage loans taken on by households are projected to change little from that registered last year as real estate activity is damped by the financial environment. But activity is nevertheless relatively well maintained in the face of mortgage rates projected to remain in the area of 15 percent. Creative financing techniques will help to generate activity, with the actual interest rates paid at least initially averaging less than 15 percent. Other borrowing by households was severely depressed in 1980 as a result of credit controls and the collapse of consumer durable purchases in the spring. We expect such borrowing this year and next will run

above the pace in 1980, but generally remain moderate in light of restraints on purchases of durable goods, especially autos.

The limited growth of household borrowing should lead to some further improvement in financial positions, although many individual households could well experience severe pressures. Loan deliquencies and other similar evidence provide a mixed picture but on balance are not now indicating major problems.

For some financial institutions serious difficulties are in prospect. The next chart shows the earnings position of S&Ls and mutual savings banks. Net income relative to assets dropped considerably in 1980 and is projected to be deeply negative for both sets of institutions this year given the interest rates in the staff forecast. This is a situation that could well require special efforts to avoid financial disturbances.

The forecast implies a good deal of stress and strain on financial, product, and labor markets. The difficulties fundamentally relate to high rates of inflation and the lag in the effect of restrictive policies on ages and prices. The monetary and fiscal policies underlying the forecast will assist in making visible progress on inflation later this year and especially in 1982. But this is an environment in which there appears to be little or no room for real growth in the economy.